

**CRITICAL EXAMINATION ON THE PERCEPTION OF
ARTIFICIAL LIGHT
IN CREATION OF POETICS OF SPACE
WITH SPECIAL REFERENCE TO SELECTED HOTELS IN
SRI LANKA**

A Dissertation
submitted to the Department of Architecture of the
University of Moratuwa in partial fulfillment of the
requirements for the degree of
Master of Science

In
Architecture

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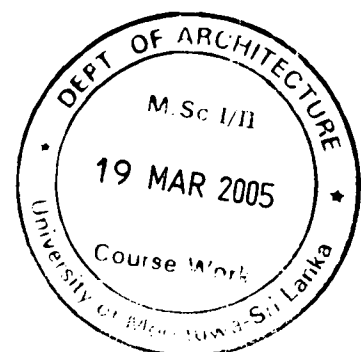
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H.L.S.P Madanayake
Department of Architecture
University of Moratuwa
Sri Lanka
March 2005

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Declaration

I declare that this dissertation represent my own work. Except where due acknowledgment is made and that it has not been previously included in a thesis, dissertation or report submitted to this university or any other institution for degree, diploma or other qualification.



H.L.S.P Madanayake

Department of Architecture

University of Moratuwa

Sri Lanka



Arch.D.P Chandrasekare

Dissertation tutor

Department of Architecture

University of Moratuwa

Sri Lanka



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Acknowledgments

There were many pitfalls, narrow paths and thorny roads on the way to completion of this dissertation. However due to the advice and encouragement given to me by the unfailing hands of many helpful people, I was able to face the challenge.

Firstly I would like to place my gratitude and thanks to Arch. Vidura Sri Nammuni, the head of the department of Architecture, for devoting time for us to discuss and plan the dissertation with him, and the inspiration and initial encouragement given to us throughout the fifth year, when he was our year master.

I would also like to thank Arch. D.P Chandrasekare, my dissertation tutor, for his timely advice and encouragement given to me at the correct time, and also Prof. Samitha Manawadu, Arch. Chris De Saram, Dr Harsha Munasinghe and specially Arch Prasanna Kulathileke for the advice and encouragement given to me when I needed it the most.

I am very much grateful to our year masters Arch Jayanath Silva, Arch Gamini Weerasinghe and our dissertation coordinator Dr. Upendra Rajapakshe for the invaluable advice and for their patient understanding, which helped us immensely to make this dissertation a success.

My special thanks and gratitude goes to Arch Sunil Goonawardena, who went out of his way to help me during my case studies, and for the valuable advice given to me.

I also extend my thanks to the staff and management of the blue water hotel, especially Mr. Sharman, the assistant manager, Mr. Fuse and Indika of the Thotupola, and the staff of Kandalama hotel for all the help and assistance given to me.

Even with all this help, my dissertation would not have been a reality if not for my dear friends Ruwan, Prasad, Miuru, Prabodhi, Dinushi, Madu and Thanuja for helping me in many ways all the way long.

I would like to thank my family for being there for me, and helping me in many ways.

Finally I am very much thankful to Tharanga, my friend for her advice, help and encouragement given to me throughout the whole process of this dissertation.

Abstract

If architecture is considered articulating a given pouch of space; poetry of space-which has its own dimensions-light, is also one of the elements which are inseparable. Artificial light, has had a tremendous impact on the way in which architecture has been redefined and expressed. Its ability to define, manipulate, distort and create poetics of space demonstrates its ethereal quality as one of the most intimate spatial experiencing.



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Critical examination on the perception of artificial light in creation of poetics of space with special reference to selected hotels in Sri Lanka

Declaration	ii
Acknowledgments	iii
Abstract	iv
Contents	v
List of illustrations	viii
Introduction	
a. Importance of the study	xi
b. Intention of the study	xii
c. Methodology	xiii
d. Scope & Limitation	xiv

CHAPTER ONE

1.0	Poetics of space	1
1.1	Perception of space	1
1.1.1	What is space?	1
1.1.2	Significance of space	2
1.1.3	Evolution of space	3
1.1.4	Architectural space	6
1.2	Elements of spatial definition	9
1.2.1	Center	9
1.2.2	Depth	10
1.2.3	Density	11
1.2.4	Enclosure	12
1.2.5	Interpenetration	13
1.2.6	Continuity	14



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1.3	Poetic sense of space	16
1.3.1	Rhythm	16
1.3.1.1	Repetition	17
1.3.1.2	Non Repetition	20
1.3.2	Simplicity	21
1.3.3	Suggestion	21
1.3.4	Complexity	22
1.3.5	Organisational Pattern	23

CHAPTER TWO

2.0	Light revealing architecture	25
2.1	Introduction to light	25
2.1.1	Attributes of light	27
2.1.1.1	Quantitative attributes	27
2.1.1.2	Qualitative attributes	27
2.1.2	Light in architecture	28
2.1.2.1	Natural light	30
2.1.2.2	Artificial light	30
2.1.3	Lighting qualities in space	31
2.1.3.1	Light and Dark	31
2.1.3.2	Shadow	33
2.1.3.3	Reflection	35
2.1.3.4	Filtration	36
2.1.4	Emotions and light	37
2.2	Light and space	40
2.2.1	Light –space	42
2.2.2	Light as an object	42
2.2.3	Light from series of objects	44
2.2.4	Light from surfaces	45

2.3	Light revealing space	46
2.3.1	Center	46
2.3.2	Depth	48
2.3.3	Density	48
2.3.4	Enclosure	49
2.3.5	Interpenetration	49
2.3.6	Continuity	50

CHAPTER THREE

3.0	Role of light in creation of poetics of space	51
3.1	Light in poetics of space	51
3.1.1	Rhythm	52
3.1.1.1	Repetition	54
3.1.1.2	Non Repetition	55
3.1.2	Simplicity	56
3.1.3	Suggestion	57
3.1.4	Complexity	59
3.1.5	Spatial progression through lighting	60
3.2	Analysis of Case Studies	63
3.2.1.	The Blue Water Hotel	65
3.2.2	The Thotupola	73
3.2.3	The Kandalama Hotel	80

Conclusion	90
Bibliography	92

List of illustrations

	Page No.
Figure 1 Polanski House, Balearic Islands	2
Figure 2 Space evaporates into infinity	3
Figure 3 Church on the water	3
Figure 4 Satellite city towers	4
Figure 5 Naoshima Contemporary Art Museum, Japan	4
Figure 6 The Grand Arch, Paris	5
Figure 7 Summary Typology: Space defining elements	6
Figure 8 Chapel space, Notre Dame Du Haut,	7
Figure 9 The sense of enclosure	8
Figure 10 The house of the Pacific, Mexico	8
Figure 11 The Hut with a hay roof, Mexico	9
Figure 12 The Villa Savoye, France	10
Figure 13 The Monastery of Saint Marie de la Tourette, France	11
Figure 14 The Vakil house, India	11
Figure 15 The chapel on the mount Rokko, Kobe , Japan	12
Figure 16 The National museum for science, The Gigantic Metal Sphere	12
Figure 17 Office for Movico:m telecommunications, Argentina	13
Figure 18 The Weston House, Lawson	14
Figure 19 The retreat and chapel for the Jesuit priests of the Colegio, San Luis	15
Figure 20 Painted stick walls under a thatched Palm roof in a house, Barra de Navidad	16
Figure 21 Colonnaded archway	17
Figure 22 The Blue water resort hotel, Wadduwa	18
Figure 23 Detail of a roof of knotted Palm, Mexico	18
Figure 24 Holiday resort, Tenerife	19
Figure 25 The 215 House, Nishiomia, Japan	19
Figure 26 The retreat and chapel for the Jesuit priests of the Colegio, San Luis	20
Figure 27 Cactus valley, Mexico	20
Figure 28 Hameelina art museum, Finland	21
Figure 29 Isobe studio and residence, Japan	21
Figure 30 The Stockner house, Carinthia, Australia	22
Figure 31 Sandstone wall carving, India	22
Figure 32 Melbourne exhibition centre, Australia	23
Figure 33 San Cristobal stable, Mexico	23
Figure 34 Salk Institute, La Jolla	24
Figure 35 Baumaxx commercial center, Maribo, Slovenia	26
Figure 36 Lights in group- equality	26
Figure 37 Continuity	26
Figure 38 Disney Gala main hall	28
Figure 39 The central subterranean hall of the grand Louver museum, Paris	29
Figure 40	29
Figure 41 Salk Institute, la Jolla	30
Figure 42 Grace Cathedral, San Francisco	31
Figure 43 Traditional courtyard house, Matala	32



Figure 44 Grace Cathedral, San Francisco	33
Figure 45 Ito House, Japan	33
Figure 46 The chapel on the mount Rokko, Kobe, Japan	34
Figure 47 The Hadid center	35
Figure 48 The Hadid centre	35
Figure 49 The Sarphatistraat office complex	36
Figure 50 The stick window	36
Figure 51 Timber pergolas over courtyard, Mexico	37
Figure 52 The Blue Water hotel	38
Figure 53 The pool at Naoshima	40
Figure 54 The church of light, Japan	41
Figure 55 National maritime museum, London	42
Figure 56 Lamp in darkness	43
Figure 57 The temple of Pantheon, Rome	43
Figure 58 Chapel space, Notre Dame Du Haut, Ronchamp, France	44
Figure 59 The Kandalama hotel lobby, Dambulla	45
Figure 60 The museum of contemporary art, Japan	45
Figure 61 The Foyer	46
Figure 62	47
Figure 63 Exhibition space at the Lionel Wendt, Colombo	47
Figure 64 Notre Dame Du Haut, Ronchamp, France	48
Figure 65 Chapel space, Notre Dame Du Haut, Ronchamp, France	48
Figure 66 The Triton hotel, Ahungalla	49
Figure 67 The Warner brothers Studio, Los Angeles	50
Figure 68 The Rioja, Bodegas Ysios vine yard, Alava, Spain	50
Figure 68 Olafur Eliasson weather station	52
Figure 69 Rhythmic motion of space	52
Figure 70 St. Peters Church, San Francisco	53
Figure 71 The quiet revolution by Luis Barragan	53
Figure 72 Lyon Satolas TGV Station	54
Figure 73 Toyota Stadium, Japan	54
Figure 74 Allsteel Office complex, Dallas, USA	55
Figure 75 Trader Vic's, Japan	56
Figure 76 Allsteel office complex, Dallas, USA	56
Figure 77 Warner Bros studio, Los Angeles	57
Figure 78 Trader Vic's, Japan	58
Figure 79 The Scient_lobby, San Francisco	58
Figure 80 The Fat city bowling ally, Littleton	59
Figure 81 The Pyramid alehouse, California	59
Figure 82 The industrial and commercial bank of China	60
Figure 83	61
Figure 84 Scala's restaurant, San Francisco	61
Figure 85 Entrance- Blue Water hotel	65
Figure 86 Entrance- Blue Water hotel	66
Figure 87 Reception lobby- Blue Water hotel	66
Figure 88 Main lobby- Blue Water hotel	67

Figure 89 Lobby- Blue Water hotel	67
Figure 90 Restaurant- Blue Water hotel	68
Figure 91 Bed room- Blue Water hotel	68
Figure 92 Swimming pool- Blue Water hotel	69
Figure 93 Walk way- Blue Water hotel	69
Figure 94 Lobby- Blue Water hotel	70
Figure 95 The reflecting pool- Blue Water hotel	70
Figure 96 Stair well- Blue Water hotel	71
Figure 97 Entrance walkway- Blue Water hotel	71
Figure 98 The Reflecting pool- Blue Water hotel	72
Figure 99 Walkway- Blue Water hotel	72
Figure 100 Reflecting Pool- Blue Water hotel	72
Figure 101 Entrance- Thotupola	73
Figure 102 Entrance lobby- Thotupola	74
Figure 103 Reception lobby- Thotupola	74
Figure 104 Main lobby- Thotupola	75
Figure 105 Restaurant- Thotupola	75
Figure 106 Restaurant- Thotupola	76
Figure 107 Bed room- Thotupola	76
Figure 108 Swimming pool- Thotupola	77
Figure 109 Restaurant and lobby- Thotupola	77
Figure 110 The Entrance walkway- Thotupola	78
Figure 111 Bed room block- Thotupola	78
Figure 112 Walkway- Thotupola	79
Figure 113 Exterior- Thotupola	79
Figure 114 Entrance- Kandalama hotel	80
Figure 115 Main Lobby- Kandalama	81
Figure 116 Lobby- Kandalama	81
Figure 117 Lobby-Kandalama	82
Figure 118 Pool lobby- Kandalama	82
Figure 119 Bar- Kandalama	83
Figure 120 Main restaurant- Kandalama	83
Figure 121 Outdoor dinning space- Kandalama	84
Figure 122 Bed room-Kandalama	84
Figure 123 Swimming pool- Kandalama	85
Figure 124 Cave near restaurant- Kandalama	85
Figure 125 Walkway- Kandalama	86
Figure 126 Stair well- Kandalama	86
Figure 127 Entrance corridor- Kandalama	87
Figure 128 Walkway- Kandalama	87
Figure 129 Walkway- Kandalama	88
Figure 130 Lobby- Kandalama	88
Figure 131 Lobby- Kandalama	89
Figure 132 Entrance walkway- Kandalama	89

INTRODUCTION

a. Importance of the study

Architecture is a quality; an emotion, which gives man mental peace as well as physical comfort, hence when both are integrated and stimulated, architecture is born.

Architectural quality is not only for enjoyment but it is for pleasure of tasting, it is an enriched spirit and an identification of the presentation that attaches to the mind. Quality, which is experienced in architectural space, is personal and that comes from man's inner self, as an inner transformation of his imprints stored from worldly life.

Light is one of the main elements that symbolize human emotions. Likewise for architecture also it provides necessary emotive nuances. At times it helps to enhance a space. So that it becomes extremely inspiring, or it could blur a space or it could clarify a space.

"Space is dissolved in darkness; space is annihilated by darkness; it is light that induced sensation of space"

Sigfried (1964:107)

Whenever there is a space the element light is also present. If architecture is considered articulating a given pouch of space; poetry of space-which has its own dimensions-light, is also one of the elements which are inseparable. Therefore it follows and contributes to this articulation. In other words architecture could be regarded as working on a base that consists of space and light.

Before discussing it further, a brief definition of perception is desired.

According to Gotshalle there are three factors in perception.

- The first is sensation, the awareness of objects in their sensory features, their colours, textures, masses, weights etc.
- The second is intuition, which is primarily the awareness of objects in their spatial and temporal order and arrangement.
- The third is the intellect, which in minimum cases usually comprises effortless and variously united interpenetration both of the object being perceived and of the type of its details such as its sensory and spatial temporal features varies with the quantity and the quality of light.

In the olden days, apertures of architecture have been more inlets of light. Most of it has been a window of a wall. This limited small was the provider of outside spirit of light to the interior space. Today Apertures of architecture has expanded its limits with the technical innovations and variation of material available for building. But despite that the use of electricity in interiors has become an effortless way out to lighting. In the spatial juxtaposition and interrelationships, the role of light is enormous. This is somewhat similar to the spatial continuity that enhances the spatial progression. Therefore the awareness of different ways of how light impacts on built form and spatial attributes is essential.

b. Intention of the study

Architecture is basically considered as a result of tangible and qualitative things that exist in a space. Today architecture has become primarily a supplement of quantitative, rather than qualitative needs. The predominant tendency has been to produce qualitative aspects such as forms, spaces, lines, colour & relationships between elements, used without a sense. Architecture is becoming only facades and no spaces. They are without any sense of rhythm, and in the role of light, that sense is been ignored.

"We must learn the new meaning of monumentality. We must learn how to create a place of worship and inspiration, how to make a quiet, enclosed, isolated space full of hustling, bustling activities pungent with vitality, dignified, vast sumptuous, even awe- inspiring spaces, transition spaces that define, separate and yet join juxtaposed spaces of contrasting character. We need sequence of space that arouse curiosity, give a sense of anticipation, beckon and impel as to rush forward to find that realizing space that dominates that premises a climax and therefore gives direction."

Paul Rudolf (1956)



Resort hotels can be regarded as pieces of architecture, which live in day & night. Quality of space is important in those, as it is what attracts tourists. It is the quality of light that makes that architecture more meaningful and poetic. Whatever it is the contribution of day light on spatial qualities is not enough to achieve a perfect piece of architecture. The same geometrical space in daylight is completely different at night under artificial light. Thus a room lit by day light is not the same when it is lit artificially at night; light which tone, contrast or accentuates them, give different perception of the same geometric space.

The visual and psychological impact on architectural space can be perceptually altered through the integration of artificial lighting within the built environment. Artificial light has had a tremendous impact on the way in which architecture has been redefined and expressed. Its ability to define, manipulate, distort and create architectural space is the focus of this thesis. This thesis will demonstrate how artificial light- through its ethereal quality – has visually and psychologically affected the tangible qualities of architectural space.

Therefore the intention of the study is to examine the way artificial light contribute in architectural space, in order to establish that light as one of the most intimate poetical spatial experiencing.

c. Methodology

As Pieter de Bruyne says, architecture is an interaction of mass, space and light.

Therefore thorough understanding of spatial attributes is a pre requisite to determine the way of entering light to a space.

In the first chapter an attempt has been made out to find out what are the spatial attributes that contribute in making poetics of space and then try to build up a correlation of different ways.

Second chapter has been devoted to identify the real qualitative perception of lighting and how the space and light is comprehended. Spatial definition has been looked at in the perception of light too. In short, how light reveals architecture has been discussed.

The third chapter attempts to reveal the role of light in creation of poetics of space. Case studies are carried out to examine the perception of light in a deeper manner. Therefore the contributions of artificial light in creating a poetic of spaces in selected hotels have become the goal of this examination.

d. Scope & Limitation

The study is basically limited to the qualitative transformation that takes place in man when creating & experiencing architecture.

Quality takes place within one's self in the experience of a work of architecture. It is something to be felt & understood rather than to be explained. In a creation of sense of place consists; imagination, energy, growth, resonance, unity, harmony, identity, beauty, reflection, potential, polarities, alignments, culture, environment, faith, symbols, colours, order, chaos, truth, stability, solitude, boundaries, tension, compression, separations, integration, expansion, perspective, deprivation, entrance, dimension, numbers, angles, foundation, load bearing, pressure, nature, natural laws, empathy, vibration, symmetry and balance etc. Therefore the wordings themselves may carry limitations with them.

Lighting aspect of a place is affected by a vast variation of factors such as colour, contrast, brightness level, texture, glare etc. The relevance of these aspects has different approaches; therefore it has not been a part of this dissertation.

However the arrangement & ordering of spaces determine how architecture might promote endeavors, elicit responses, and communicate meaning. So while the study focuses on spatial ideas, it is not to diminish the importance of the social, political or economical aspects of architecture.

The illusive qualities of light in architecture make it impossible to understand only through photographs. On the other hand photographs only show the two-dimensional form; when the experience is from a three dimensional entity.